FIGURE 1
(prior art)

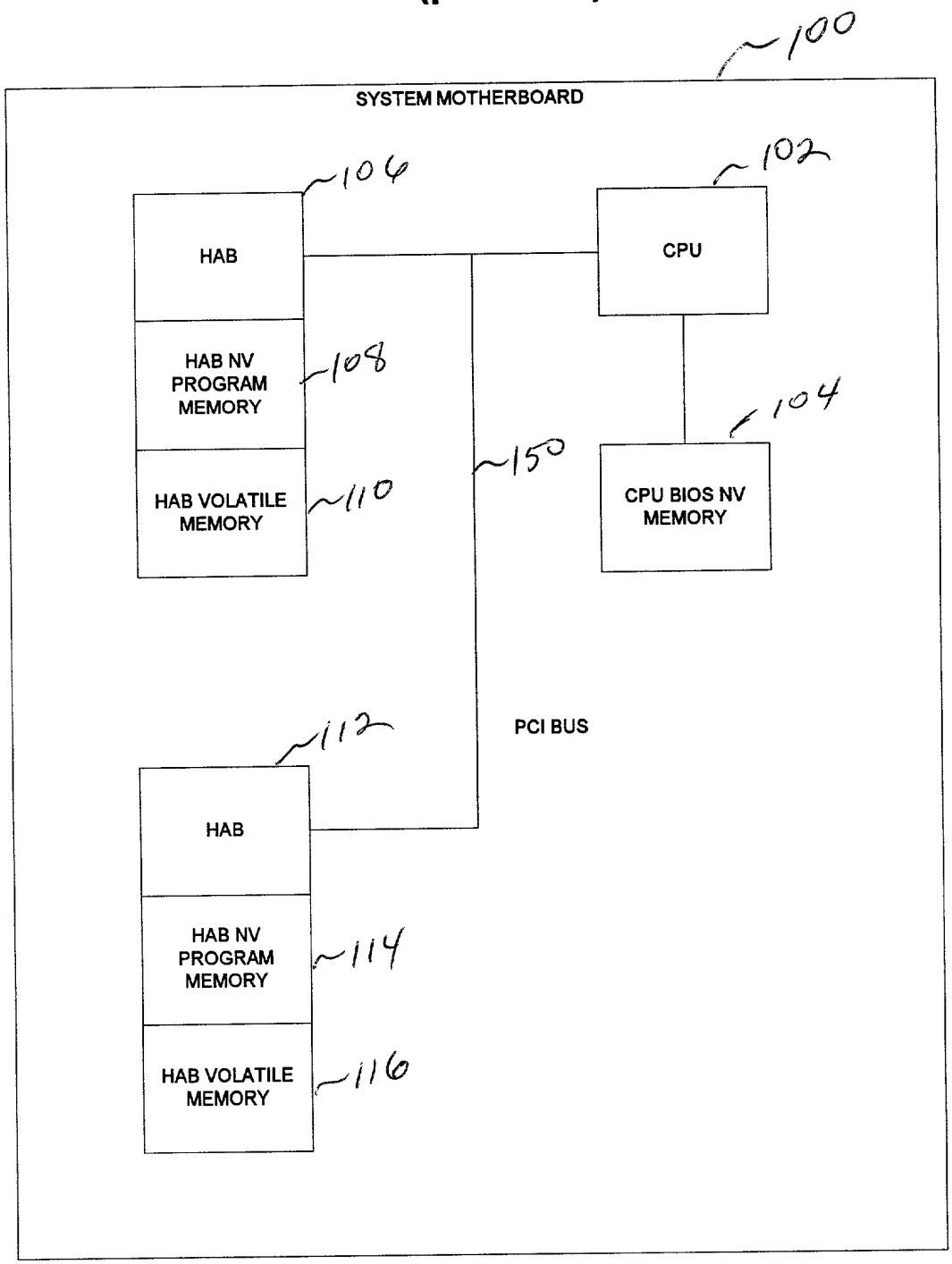


FIGURE 2

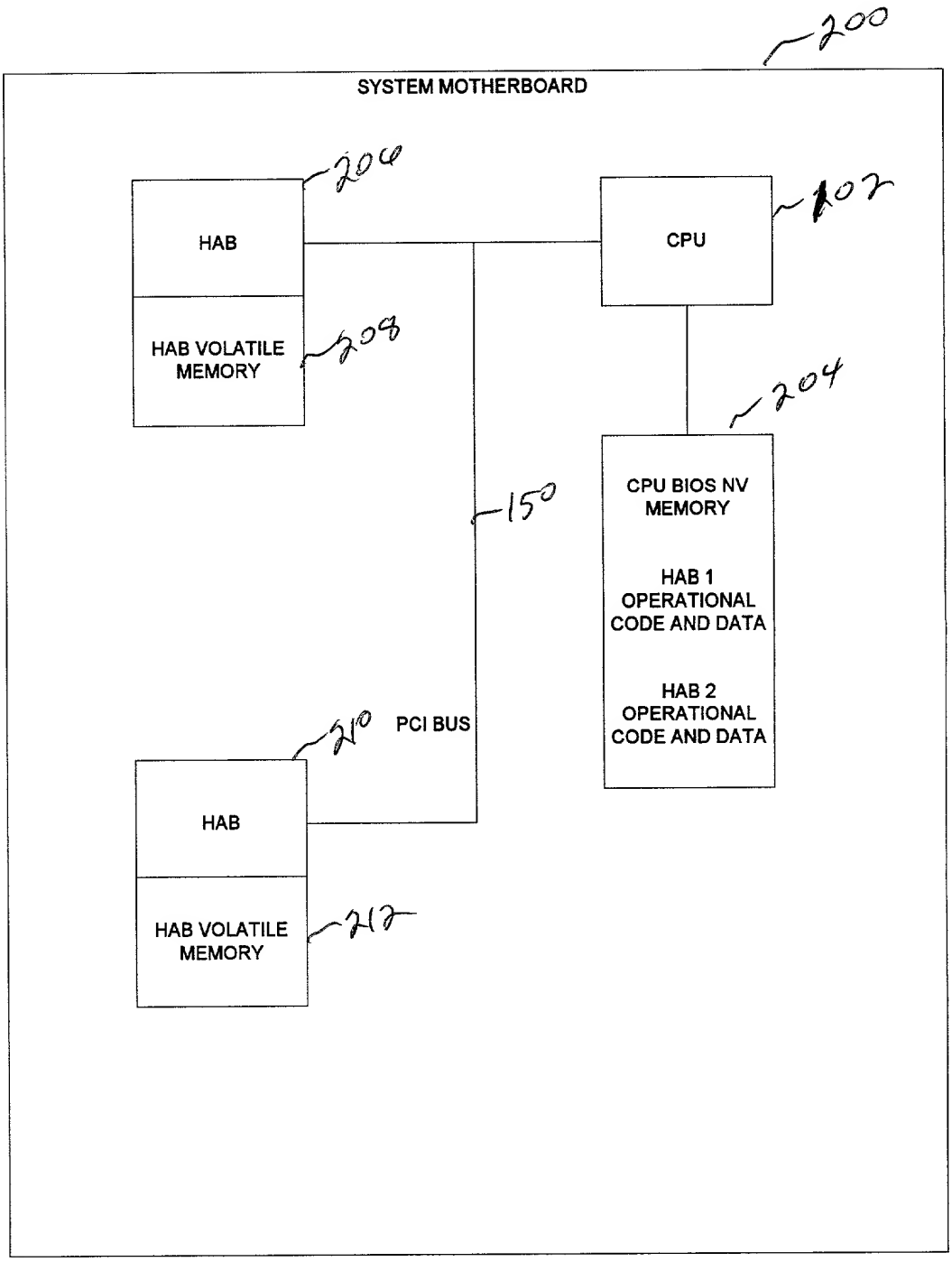

200
SYSTEM MOTHERBOARD
206
HAB
HAB VOLATILE MEMORY
208
CPU
202
204
CPU BIOS NV MEMORY
HAB 1 OPERATIONAL CODE AND DATA
HAB 2 OPERATIONAL CODE AND DATA
150
PCI BUS
210
HAB
HAB VOLATILE MEMORY
212

FIGURE 3

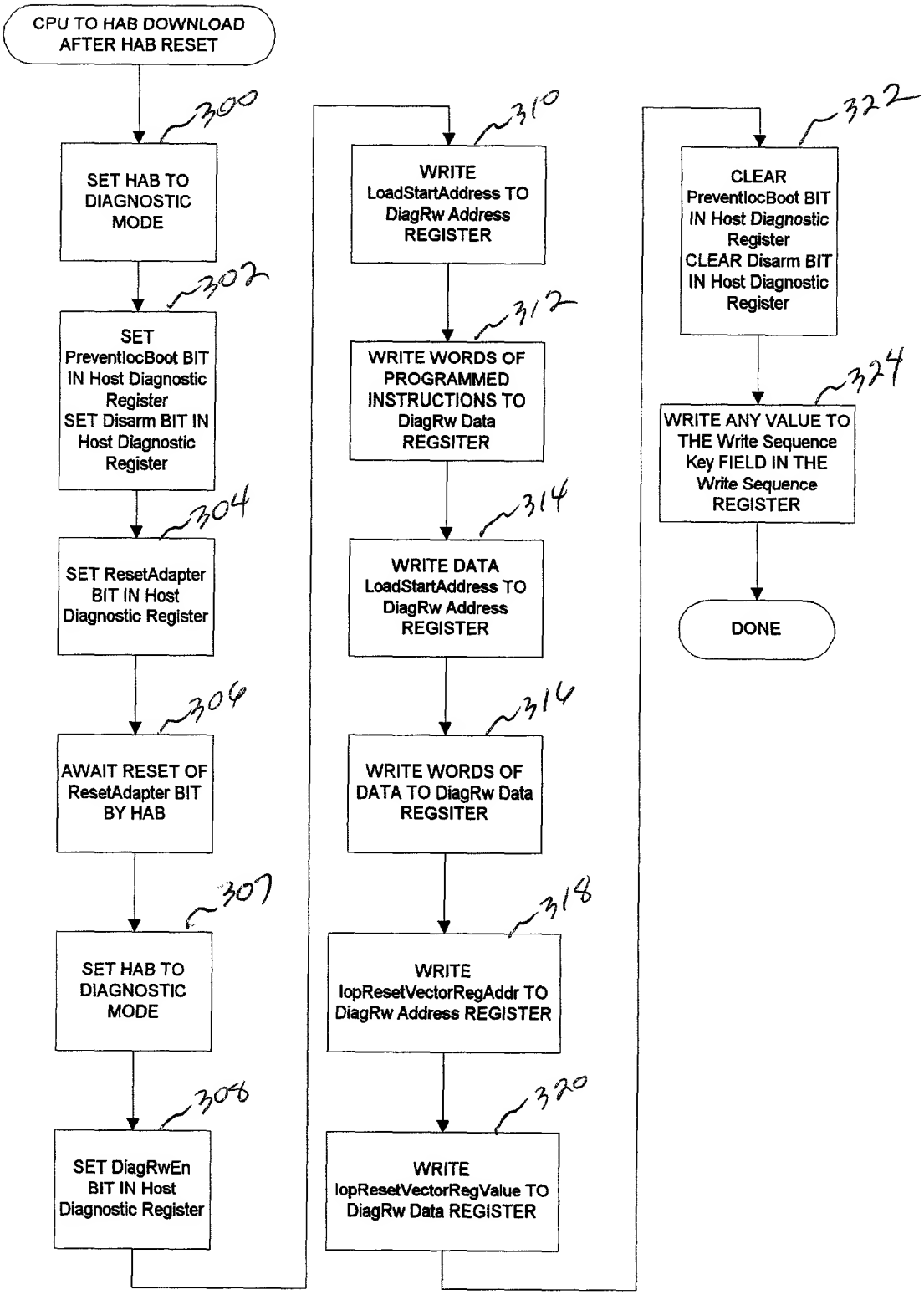

CPU TO HAB DOWNLOAD AFTER HAB RESET
300
SET HAB TO DIAGNOSTIC MODE
302
SET PreventIocBoot BIT IN Host Diagnostic Register SET Disarm BIT IN Host Diagnostic Register
304
SET ResetAdapter BIT IN Host Diagnostic Register
306
AWAIT RESET OF ResetAdapter BIT BY HAB
307
SET HAB TO DIAGNOSTIC MODE
308
SET DiagRwEn BIT IN Host Diagnostic Register
310
WRITE LoadStartAddress TO DiagRw Address REGISTER
312
WRITE WORDS OF PROGRAMMED INSTRUCTIONS TO DiagRw Data REGSITER
314
WRITE DATA LoadStartAddress TO DiagRw Address REGISTER
316
WRITE WORDS OF DATA TO DiagRw Data REGSITER
318
WRITE IopResetVectorRegAddr TO DiagRw Address REGISTER
320
WRITE IopResetVectorRegValue TO DiagRw Data REGISTER
322
CLEAR PreventIocBoot BIT IN Host Diagnostic Register CLEAR Disarm BIT IN Host Diagnostic Register
324
WRITE ANY VALUE TO THE Write Sequence Key FIELD IN THE Write Sequence REGISTER
DONE

FIGURE 4

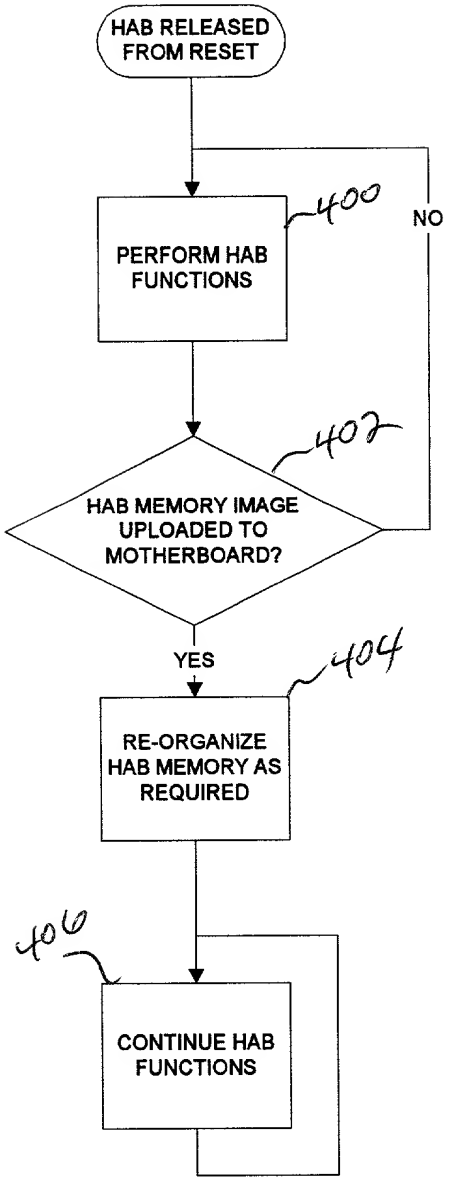
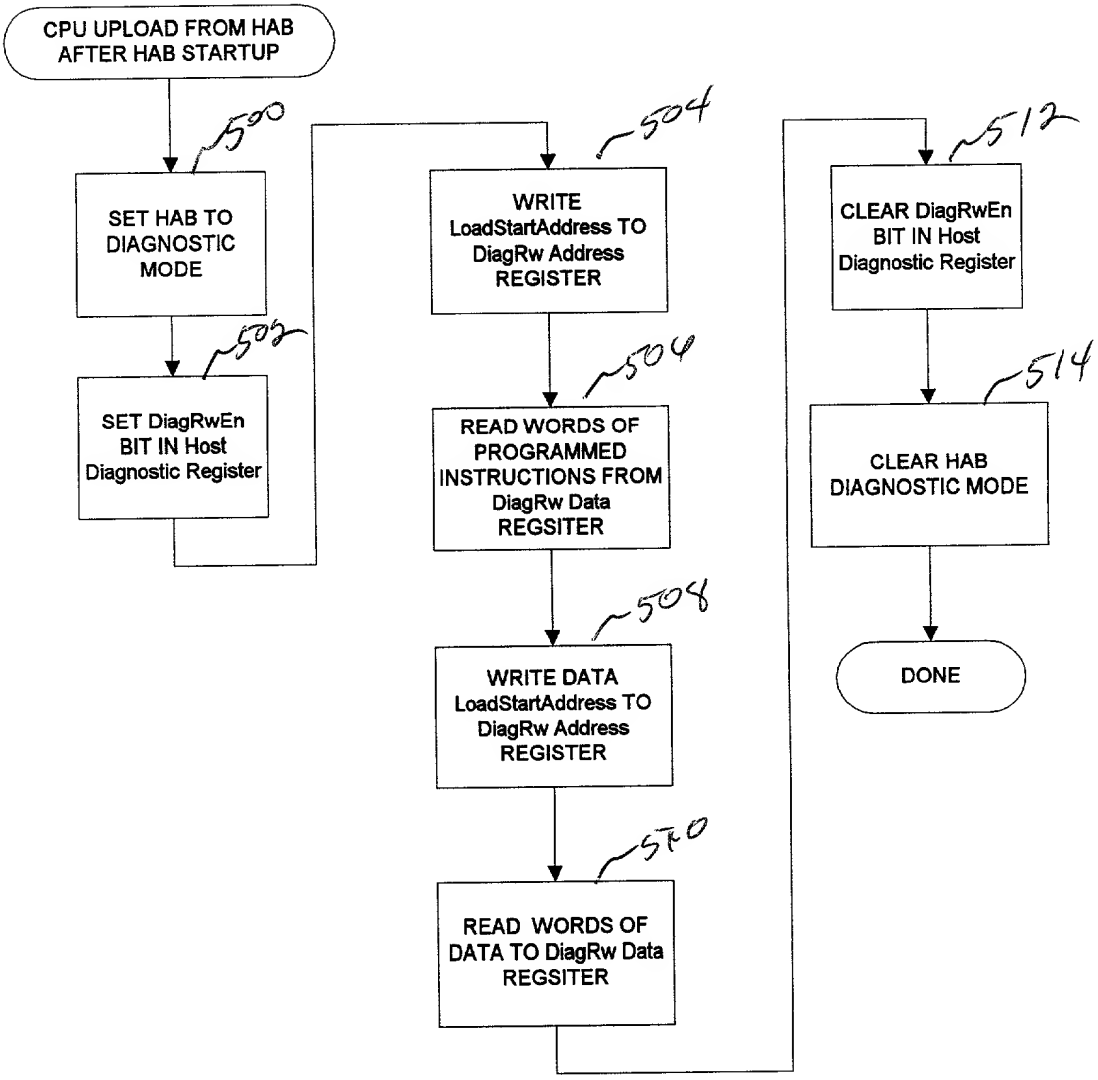

HAB RELEASED FROM RESET
400
PERFORM HAB FUNCTIONS
NO
402
HAB MEMORY IMAGE UPLOADED TO MOTHERBOARD?
YES
404
RE-ORGANIZE HAB MEMORY AS REQUIRED
406
CONTINUE HAB FUNCTIONS

FIGURE 5


CPU UPLOAD FROM HAB AFTER HAB STARTUP
500
SET HAB TO DIAGNOSTIC MODE
502
SET DiagRwEn BIT IN Host Diagnostic Register
504
WRITE LoadStartAddress TO DiagRw Address REGISTER
506
READ WORDS OF PROGRAMMED INSTRUCTIONS FROM DiagRw Data REGSITER
508
WRITE DATA LoadStartAddress TO DiagRw Address REGISTER
510
READ WORDS OF DATA TO DiagRw Data REGSITER
512
CLEAR DiagRwEn BIT IN Host Diagnostic Register
514
CLEAR HAB DIAGNOSTIC MODE
DONE